ORION
COLOR 8501

Service Manual

S P E C I F I C A T I O N S

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TV SECTION

Picture Size ..... 5 inch

System ..... PAL

Frequency Range VHF ..... 2 - 12 CH, 47 - 230 MHz

UHF ..... 21 - 69 CH, 470 - 862 MHz

Max. Sensitivity VHF ..... 30 dB

UHF ..... 35 dB

Intermediate Frequency Picture IF Carrier Frequency ..... 38.9 MHz

Color Sub Carrier Frequency ..... 34.47 MHz

Sound IF Carrier Frequency ..... 33.4 MHz

Intercarrier Frequency ..... 5.5 MHz

RADIO SECTION

	MW	FM	LW
Frequency Range	520 - 1605 KHz	88 - 108 MHz	148 - 255 KHz
Intermediate Frequency	455 KHz	10.7MHz	455 KHz
Maximum Sensitivity	54 dB/m	25 dB	64 dB/m

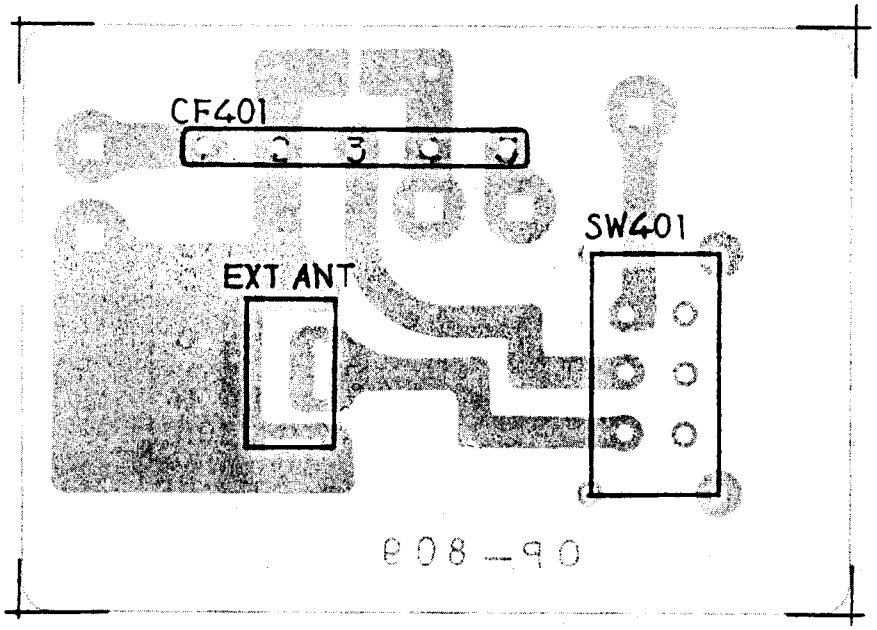
GENERAL

Maximum Output Power ..... 500 mW

10% THD Output Power ..... 400 mW

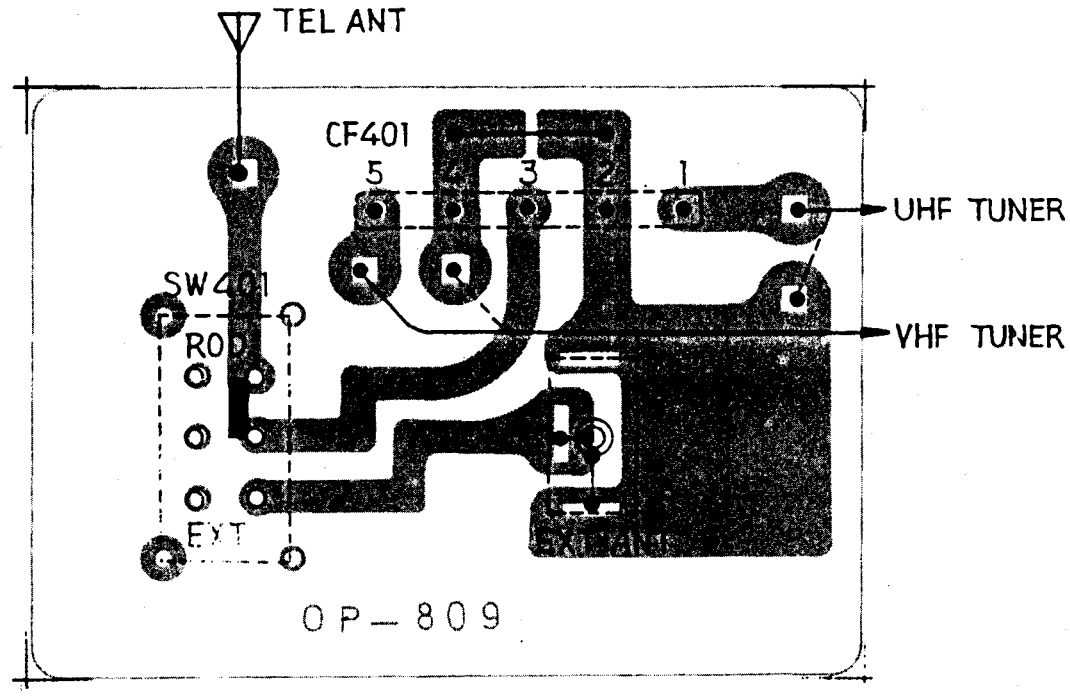
Power Source ..... AC 220V
DC 15V Battery "D" Cell x 10
DC 12V Car Battery
DC 10.8V Rechargeable Battery

	IC	Transistor	Diode
TV Section	8	9	14
Radio Section	1	3	5
Common	0	4	13
Total:	9	16	32



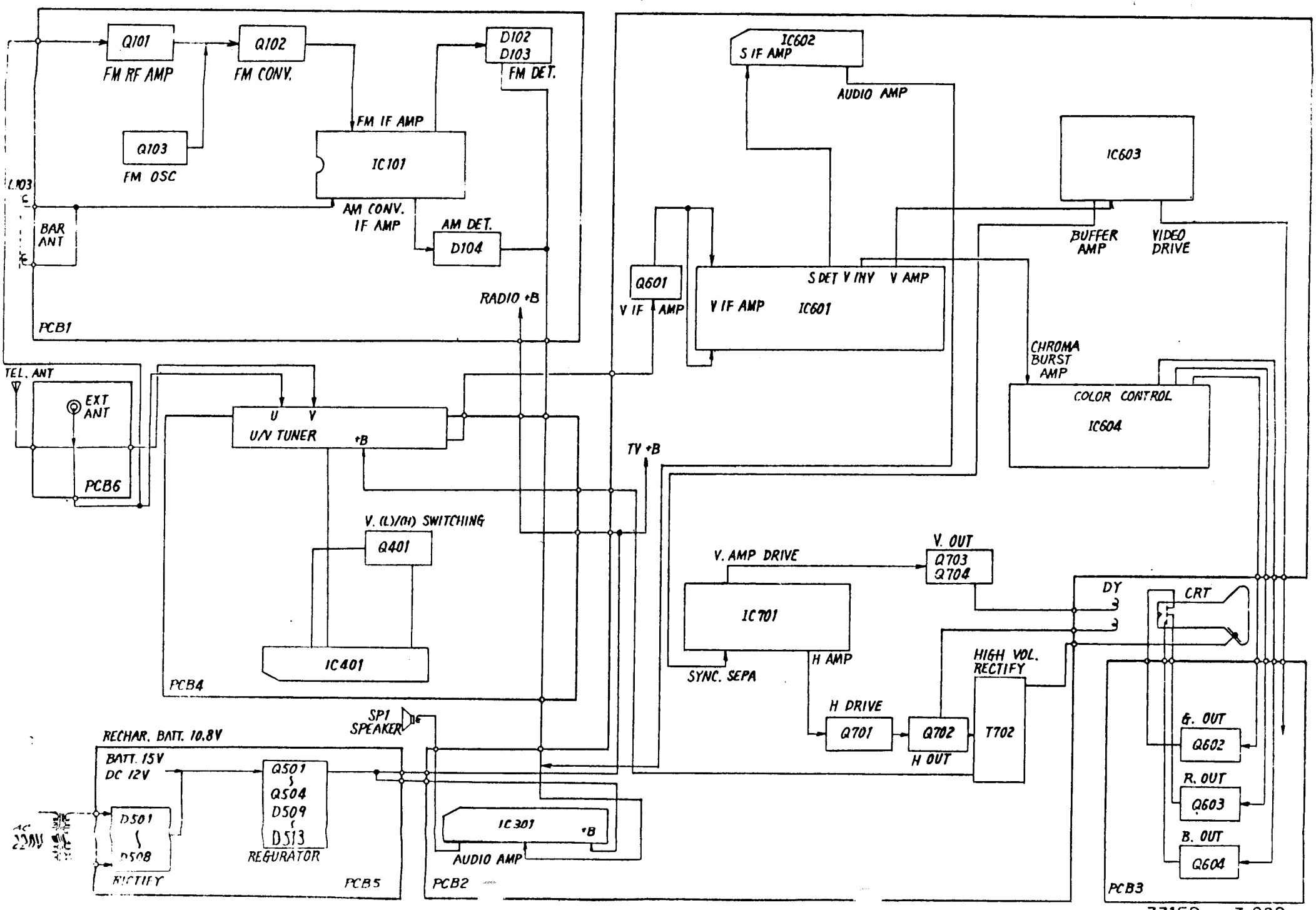
PCB6 OP-809
TOP VIEW

77152-45 4-875

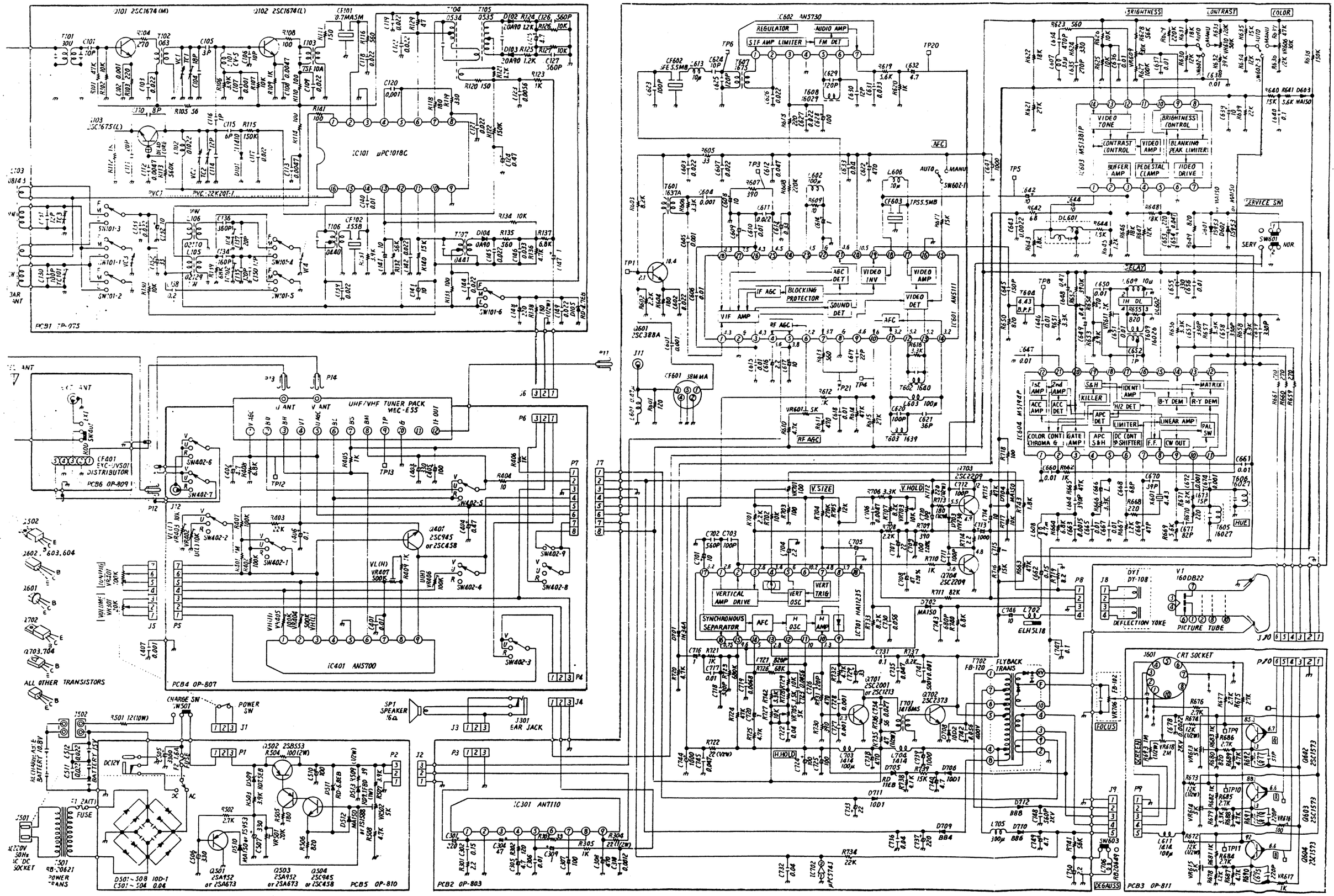


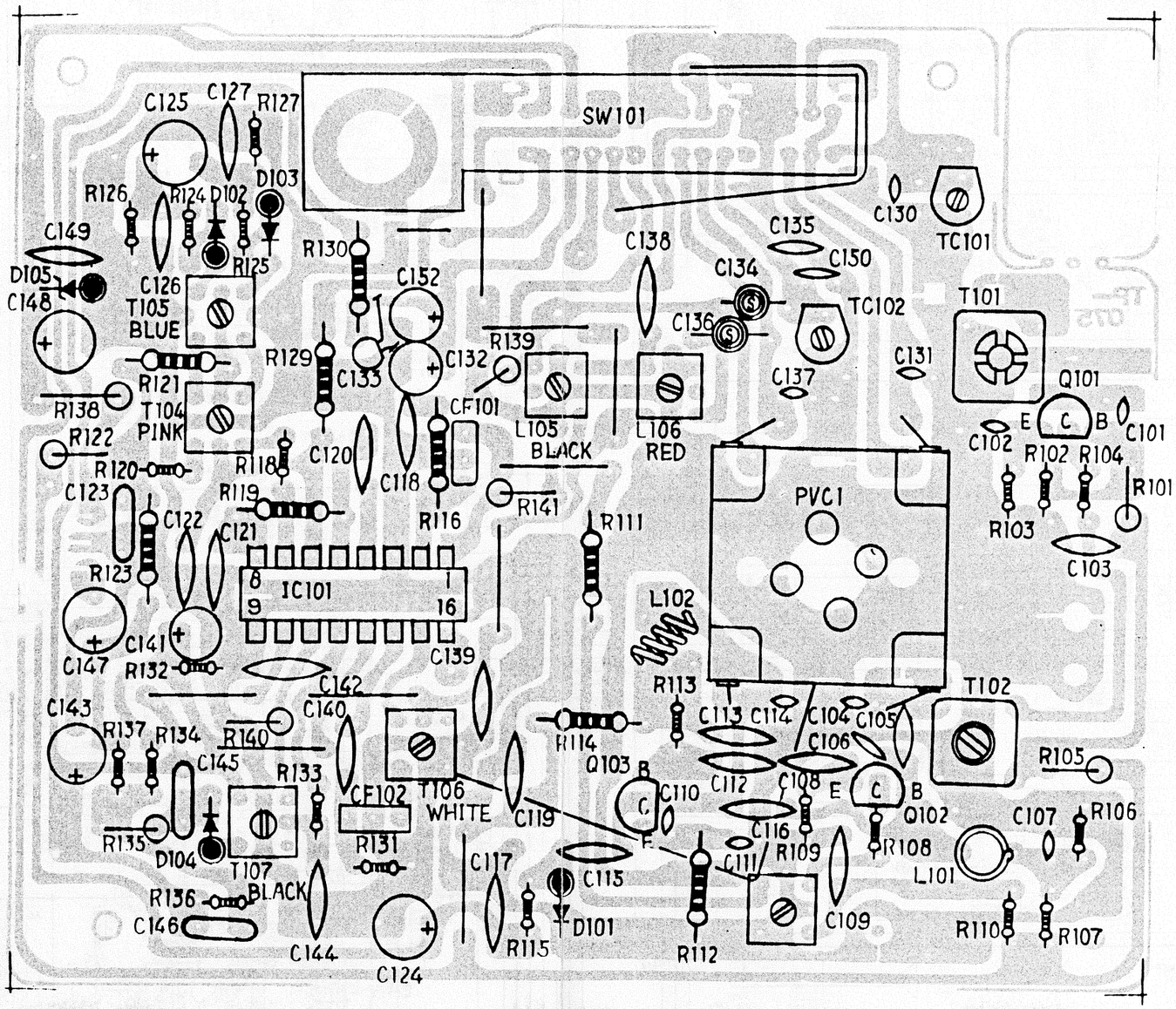
PCB6 OP-809
BOTTOM VIEW

77152-45 4-876


Q101
FM RF AMP
Q102
FM CONV.
D102
D103
FM DET.
FM IF AMP
Q103
FM OSC
IC101
L103
BAR ANT
AM CONV. IF AMP
AM DET.
D104
RADIO +B
PCB1
IC602
S IF AMP
AUDIO AMP
IC603
BUFFER AMP
VIDEO DRIVE
Q601
V IF AMP
V IF AMP
IC601
S DET V INV
V AMP
CHROMA BURST AMP
COLOR CONTROL
IC604
TEL. ANT
EXT ANT
PCB6
U V
U/V TUNER
+B
TV +B
V. (L)/(H) SWITCHING
Q401
IC401
PCB4
V. AMP DRIVE
IC701
SYNC. SEPA
H AMP
V. OUT
Q703
Q704
DY
CRT
HIGH VOL. RECTIFY
H DRIVE
Q701
Q702
H OUT
T702
G. OUT
Q602
R. OUT
Q603
B. OUT
Q604
PCB3
SP1
SPEAKER
RECHAR. BATT. 10.8V
BATT. 15V
DC 12V
Q501
Q504
D509
D513
REGURATOR
D501
D508
RECTIFY
PCB5
IC301
+B
AUDIO AMP
PCB2

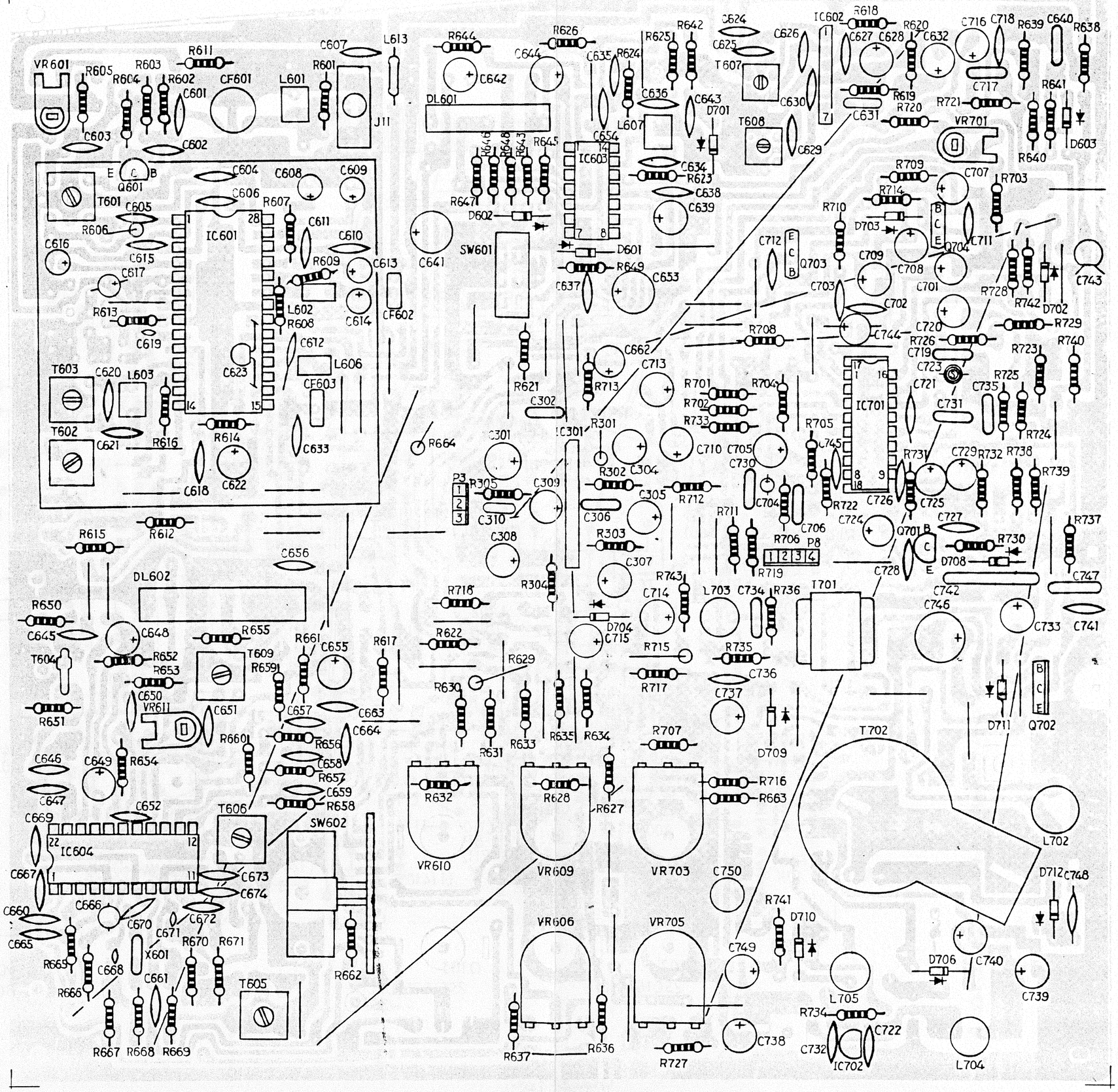
77152 3-902


Q101 2SC1674(M)
Q102 2SC1674(L)
Q103 2SC1675(L)
IC101 μPC1018C
PCB1 TP-075
UHF/VHF TUNER PACK VEC-E55
IC401 AN5700
PCB4 OP-807
PCB6 OP-809
PCB5 OP-810
IC301 AN7110
PCB2 OP-803
IC602 AN5730
REGULATOR
AUDIO AMP
SIF AMP LIMITER
FM DET
IC601 AN5111
VIF AMP
IF AGC
BLOCKING PROTECTOR
SOUND DET
VIDEO DET
VIDEO INV
VIDEO AMP
AGC DET
RF AGC
AFC
Q601 2SC388A
CF601 38MMA
CF602 SFE5.5MB
CF603 TPS5.5MB
L601 37A
L606 10μ
DL601
BRIGHTNESS
CONTRAST
COLOR
IC603 M51381P
VIDEO TONE
BRIGHTNESS CONTROL
CONTRAST CONTROL
VIDEO AMP
BLANKING PEAK LIMITER
BUFFER AMP
PEDESTAL CLAMP
VIDEO DRIVE
SERVICE SW
SW601
NOR
SERV
DELAY
TP8
4.43 B.P.F.
1H DL
DL602
IC604 M51942P
1st AMP
2nd AMP
S&H
IDENT AMP
MATRIX
KILLER
ACC AMP
ACC DET
H/2 DET
B-Y DEM
R-Y DEM
APC DET
LIMITER
LINEAR AMP
PAL SW
COLOR CONT CHROMA G
GATE AMP
APC S&H
DC CONT & SHIFTER
F.F.
CW OUT
Q703 2SC2209
V.SIZE
V.HOLD
HUE
VERTICAL AMP DRIVE
VERT OSC
VERT TRIG
SYNCHRONOUS SEPARATOR
AFC
H OSC
H AMP
H.HOLD
IC701 HA11235
Q701 1414MS
Q702 2SC2373
Q703 2SC2001 or 2SC1213
T701 FBT-120
T702 FLYBACK TRANS
D702 MA150
ELH5L18
DEFLECTION YOKE
PICTURE TUBE
CRT SOCKET
FOCUS
SCREEN
DEGAUSS
CHARGE SW
POWER SW
BATTERY 10.8V
DC12V
FUSE
POWER TRANS
SP1 SPEAKER 16Ω
EAR JACK
DISTRIBUTOR
ALL OTHER TRANSISTORS



PCB1 TP 075
TOP VIEW

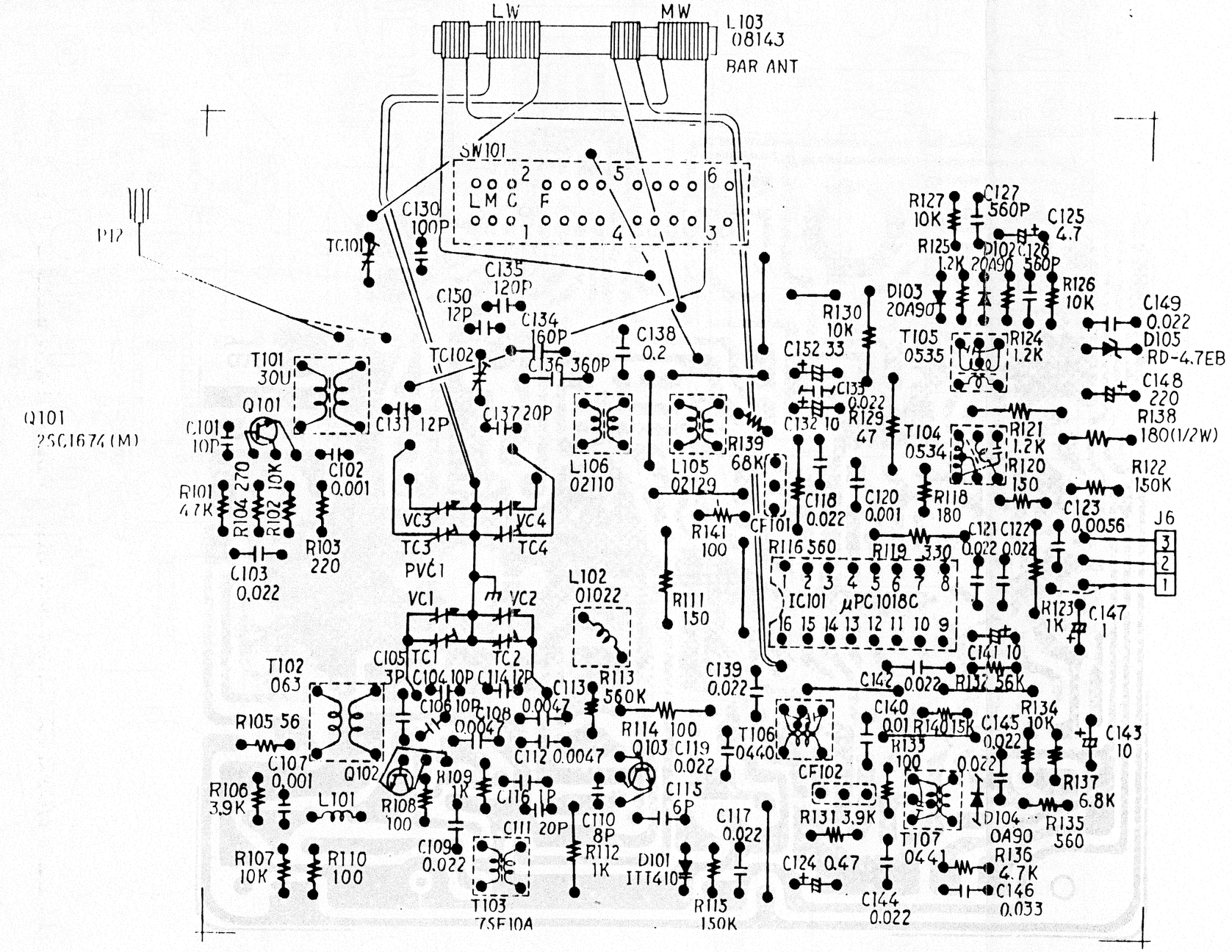
77152-45



PCB2 OP-803
TOP VIEW

77152-45

2-1158



Q101
2SC1674(M)

Q102
2SC1674(L)

Q103
2SC1675(L)

PCB1 TP-075
BOTTOM VIEW

7/152-15 3-908

Q703, 704
2SC2209

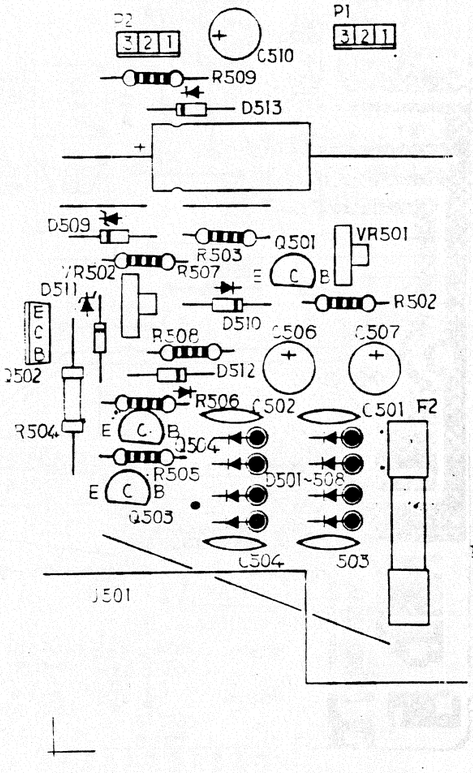
Q601
2SC388A

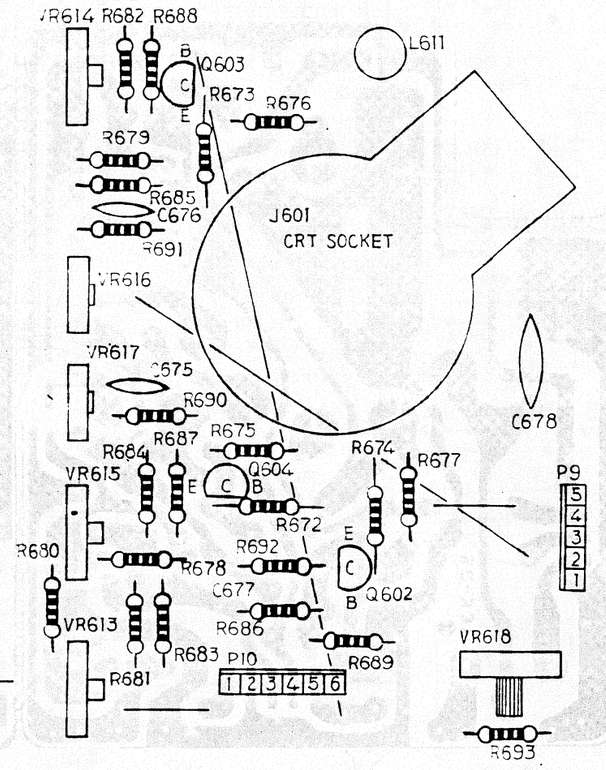
Q701
2SC1317

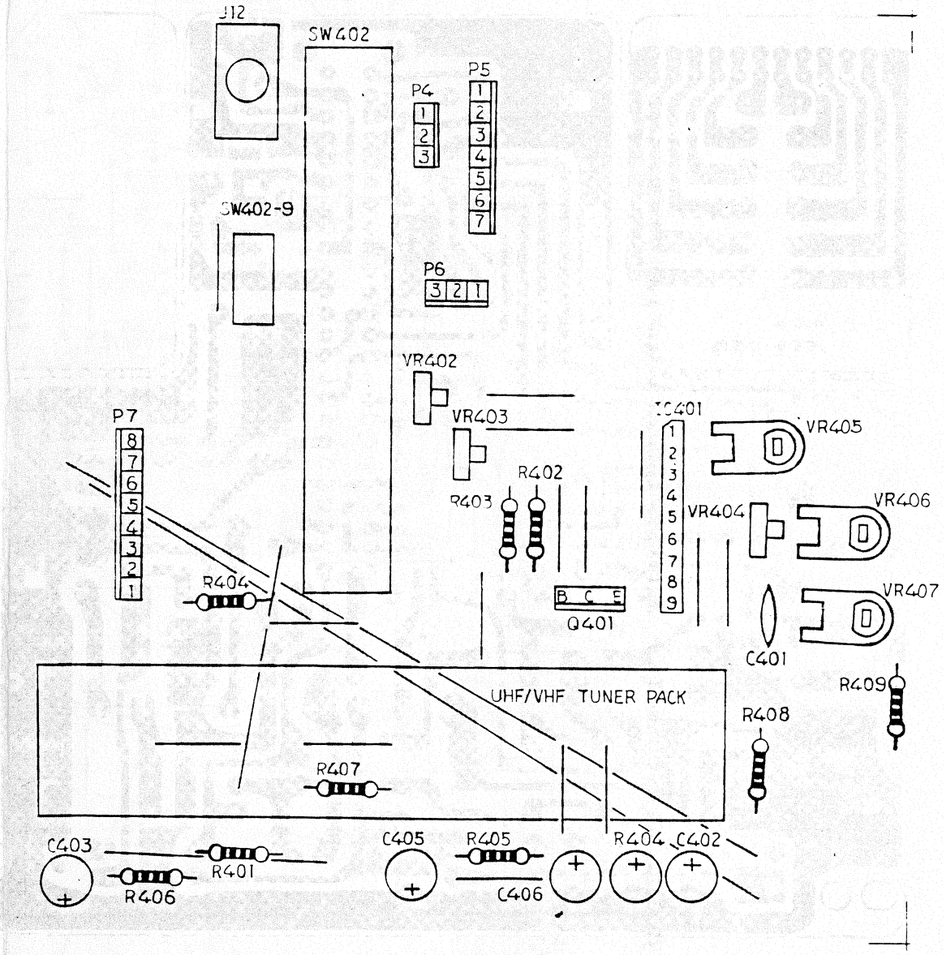
Q702
2SC2373

PCB2 OP-803
BOTTOM VIEW

77152-45
2-1159







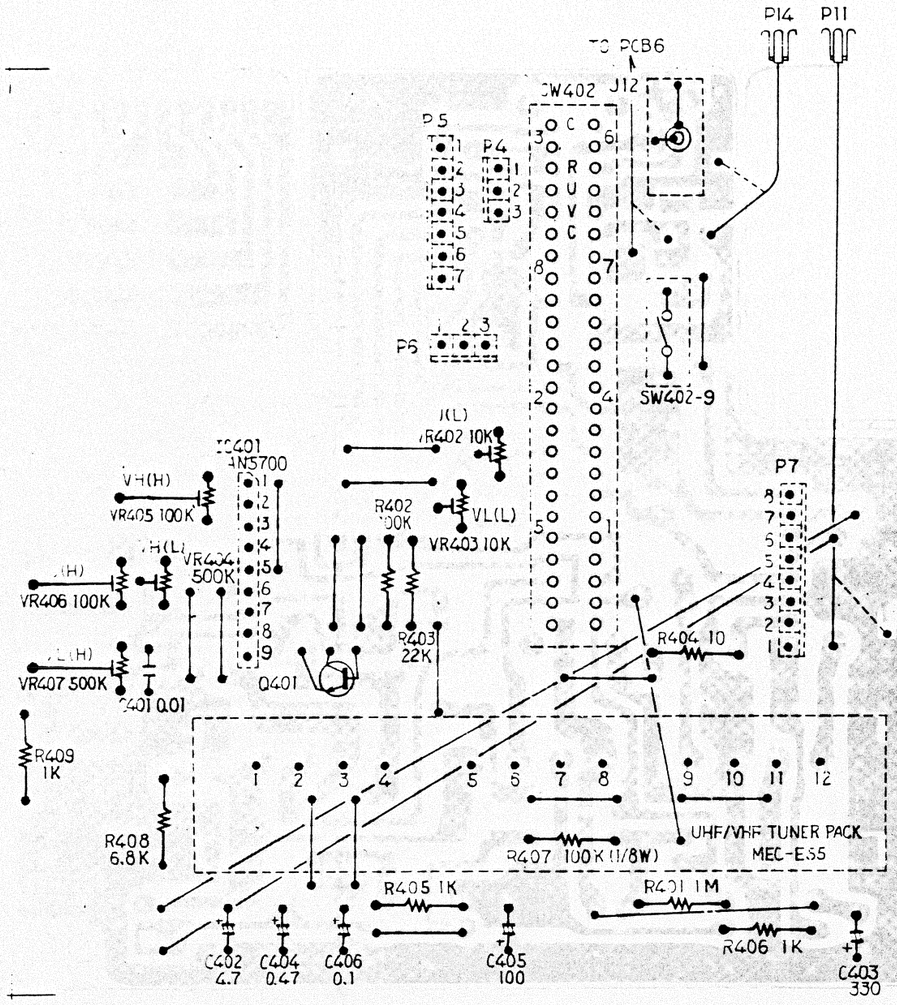
PCB5 OP-810
TOP VIEW

PCB3 OP-811
TOP VIEW

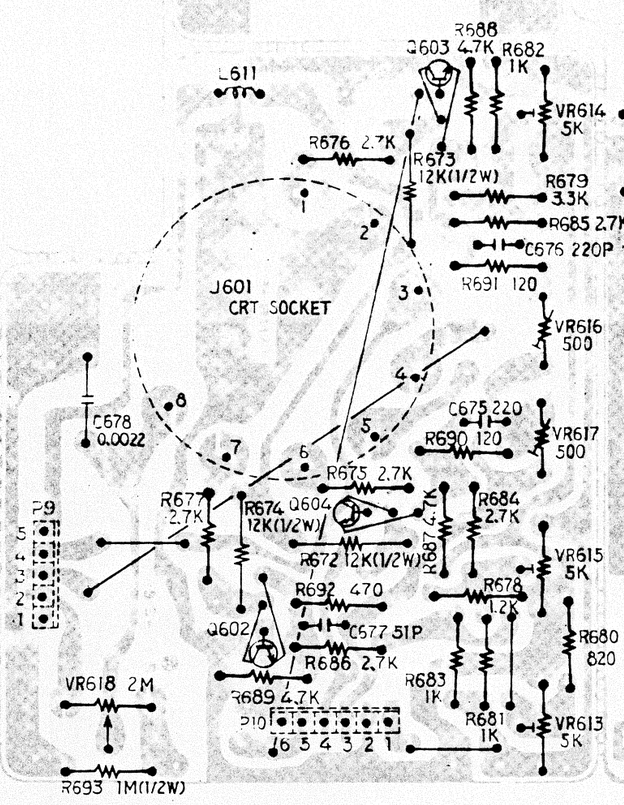
PCB4 OP-807
TOP VIEW

77152-45

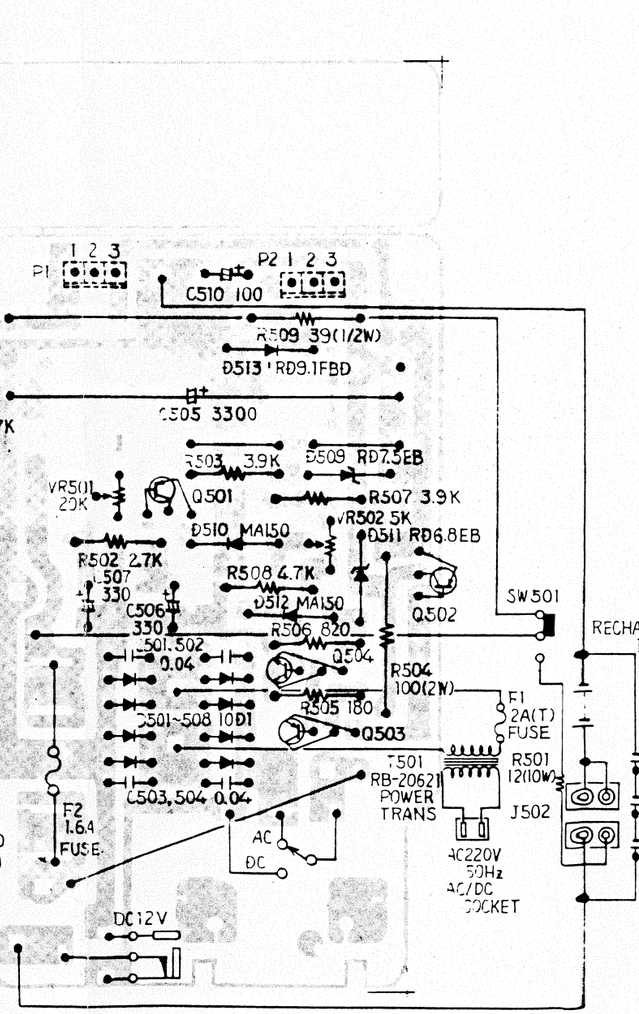
2-1160



Q401
2SC458



Q602, 603, 604
2SC1573



Q501, 503 2SA952 or 2SA673
Q504 2SC945 or 2SC458
Q502 2SB553

PCB4 OP-807
BOTTOM VIEW

PCB3 OP-811
BOTTOM VIEW

PCB5 OP-810
BOTTOM VIEW